

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2033386	divid\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/03/03 13:10
L2	999285	clock\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/03/03 13:10
L3	260783	1 and 2	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/03/03 13:12
L4	96158	limit\$4 SAME amplitude	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/03/03 13:12
L5	11082	3 and 4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/03/03 13:13
L6	585	delay adj matching	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/03/03 13:13
L7	19	5 and 6	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/03/03 13:13
L8	103796	steady adj state	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/03/03 13:14

L9	8	7 and 8	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/03/03 13:17
L10	4315	clock adj buffer\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/03/03 13:18
L11	8338	divid\$4 adj clock\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/03/03 13:19
L12	277	10 and 11	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/03/03 13:19
L13	14	12 and 4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/03/03 13:19
L14	9	13 not 9	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/03/03 13:20
L15	15729	amplitude near1 adjust\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/03/03 13:21
L16	7	15 and 12	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/03/03 13:23

L17	14	12 and 4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/03/03 13:24
L18	1362	limit\$4 SAME amplitude SAME (steady adj state)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/03/03 13:25
L19	617	18 and 1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/03/03 13:29
L20	150	19 and 2	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/03/03 13:28
L21	0	out adj of adj phase	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/03/03 13:28
L22	7786582	(out of phase)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/03/03 13:29
L23	276	2 and 18	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/03/03 13:29



Fax

☒ Urgent

☐ Return reply requested

☐ Original will be sent as confirmation

To: USPTO

Date: March 3, 2005

Attention: Examiner M. Ton

Re: Appl. No. 10/622,708; Filed 07/21/03
For: **Apparatus and Method for Delay
Matching of Full and Divided Clock
Signals**
Inventor: Kwang Y. Kim

From: Jason D. Eisenberg

Pages (including cover sheet): 5

Your Reference: 10/622,708

Fax No: (571) 273-1754

Our Reference: 1875.1710002

Message

The European Search Report and Japanese Abstract filed on January 19, 2005 are attached.

If any portion of this transmission is not received clearly or in full,
contact us at 202.371.2600 or f 202.371.2540

This message is intended for the exclusive use of the individual or entity to which it is addressed. The message may contain information that is privileged, confidential, or otherwise exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, copying or use of this communication in any way is strictly prohibited. If you have received this communication in error, please call us collect immediately, and return the original message to us at the above address via the U.S. Postal Service.

Sterne, Kessler, Goldstein & Fox P.L.L.C. : 1100 New York Avenue, NW : Washington, DC 20005 : 202.371.2600 f 202.371.2540 : www.skgf.com



P.B.5818 - Patentaan 2
2280 HV Rijswijk (ZH)
☎ +31 70 340 2040
TX 31651 epo nl
FAX +31 70 340 3016

Europäisches
Patentamt

Zweigstelle
in Den Haag
Forschungs-
abteilung

European
Patent Office

Branch at
The Hague
Search
division

Office européen
des brevets

Département A
La Haye
Division de la
recherche

Jehle, Volker Armin, Dipl.-Ing.
Patentanwälte
Bosch, Graf von Stosch, Jehle,
Flüggelstrasse 13
80639 München
ALLEMAGNE

BOSCH	GRAF VON STOSCH	JEHLE
PATENTANWÄLTEGESELLSCHAFT MBH		
Eingegangen - Received		
03. Jan. 2005		
FRIST:		
VORFRIST:		

Datum/Date

04.01.05

Zeichen/Ref./Réf.

BP12P207EP

Anmeldung Nr./Application No./Demande n°/Patent Nr./Patent No./Brevet n°.
02256374.6-2215-

Anmelder/Applicant/Demandeur/Patentinhaber/Propriétaire/Titulaire
Broadcom Corporation

COMMUNICATION

The European Patent Office herewith transmits as an enclosure the European search report for the above-mentioned European patent application.

If applicable, copies of the documents cited in the European search report are attached.

☒ Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.

The following specifications given by the applicant have been approved by the Search Division:

☒ abstract

☒ title

☐ The abstract was modified by the Search Division and the definitive text is attached to this communication.

The following figure will be published together with the abstract: 3

REFUND OF THE SEARCH FEE

If applicable under Article 10 Rules relating to fees, a separate communication from the Receiving Section on the refund of the search fee will be sent later.



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 02 25 6374

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (InCL1.7)
X ✓	US 5 175 752 A (YOKOMIZO KOICHI) 29 December 1992 (1992-12-29) * figure 3 *	1,2,4-6, 9,12,13	H03K5/13
X ✓	PATENT ABSTRACTS OF JAPAN vol. 0131, no. 73 (E-748), 24 April 1989 (1989-04-24) & JP 64 002417 A (MITSUBISHI ELECTRIC CORP), 6 January 1989 (1989-01-06) * abstract; figure 1 *	1,4	
			TECHNICAL FIELDS SEARCHED (InCL1.7)
			H03K
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 27 December 2004	Examiner Brown, J
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date O : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03/02 (p4/c31)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 02 25 6374

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

27-12-2004

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5175752	A	29-12-1992	JP 4151912 A	25-05-1992
JP 64002417	A	06-01-1989	NONE	

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 64002417
PUBLICATION DATE : 06-01-89

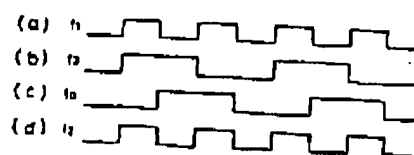
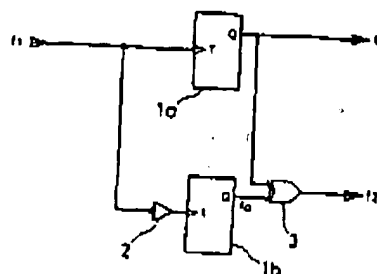
APPLICATION DATE : 24-06-87
APPLICATION NUMBER : 62158279

APPLICANT : MITSUBISHI ELECTRIC CORP;

INVENTOR : YAMASHITA SHINJI;

INT.CL. : H03K 23/50

TITLE : FREQUENCY DIVIDER



ABSTRACT : PURPOSE: To preclude the skew between a signal after frequency division and an original signal by generating 1/2-frequency-divided signals by a frequency dividing circuit at each timing which is 0 and $\pi/2$ each out of phase with the input signal, ORing the two frequency divided signals which differ in timing exclusively, and regenerating a signal similar to the frequency of the input signal.

CONSTITUTION: This frequency divider consists of 1st and 2nd frequency dividing circuits 1a and 1b which output frequency signals a half as large as the input signal, an inverter circuit 2 which outputs the inverted signal of the input signal, and a two-input exclusive OR circuit 3. The exclusive OR output signal f_2 between the output signal f_3 of the frequency dividing circuit 1a which inputs the input signal f_1 and the output signal f_a of the frequency dividing circuit 1b which inputs the output of the inverter circuit 2 for the input signal f_1 is generated to generate the signal f_2 similar to the frequency of the original input signal f_1 . The signal delay propagation of the exclusive OR circuit is smaller than that of an FF circuit, so this regenerated signal f_2 is used instead of the original input signal f_1 . Consequently, the skew between the original frequency signal and 1/2 frequency signal is reduced.

COPYRIGHT: (C)1989,JPO&Japio